



City of Iqaluit

Dead Dog Lake Water Extraction for Dust Suppression

SUPPORTING SUBMISSION FOR APPLICATION TO AMEND TYPE A WATER LICENCE 3AM-IQA1626

September 2020

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1. INTRODUCTION

Purpose of this Document

The purpose of this document is to supplement the Application to Amend Type A Water Licence 3AM-IQA1626 for the City of Iqaluit pertaining to the extraction of water from Dead Dog Lake (Imiqtarviviniq) for the use of dust suppression of municipal roadways. This document should be read in conjunction with and constitutes part of that application.

2. MINIMUM APPLICATION REQUIREMENTS

As a part of the application package, following documents supplied to Nunavut Water Board (NWB) for the consideration of the amendment application

- ✓ Completed application for Water Licence Amendment Form
- ✓ Supporting document submission that satisfies the requirements of the Supplemental Information Guidelines (SIG) for Municipal Development that include the following plans, reports and design:
 - List here
- ✓ Application fee.

3. DETAILS OF AMENDMENT APPLICATION

Purpose of Application

The City of Iqaluit (City) currently obtains water from Lake Geraldine as its primary fresh water source. The City amended its Type A licence in 2019 in order to allow for the extraction of 500,000 cubic metres of water from the Apex River in order to supplement its fresh water supply from Lake Geraldine. The amendment further authorized the City to withdraw a total volume of 2,000,000 cubic metres of water from Lake Geraldine. The 2019 amendment was largely pursued due to recent impacts surround the lack of replenishment of the Lake Geraldine reservoir during the spring freshet and summer months. The replenishment of the reservoir is critical to ensuring the City can sustain required demand during the winter, when the open water season is closed. In addition, the City has enforced various water conservation measures in order to promote more efficient use of water, while minimizing non-essential use.

The City is currently pursuing an amendment to its water licence to allow the City to extract water from a secondary water source known as Imiqtarviviniq (Dead Dog Lake). The water extracted from Dead Dog Lake would be used solely for dust suppression of municipal roadways during the Spring, Summer, and Fall months. The City is pursuing this amendment in order to maximize the amount of water available in Lake Geraldine for essential purposes to the general public. The application has not yet passed the NPC and NIRB screening processes; however, the intention is that it will be reviewed in tandem with the NWB. Based on the regulatory review process expected, the City is seeking approval in order to utilize water from Dead Dog Lake for the 2021 season.

Project Description

The City of Iqaluit (City) is currently approved to extract water from Lake Geraldine under its Type A water license. Water withdrawn from Lake Geraldine is treated at the City's water treatment plant, then distributed to the community for use.

The City utilizes water for the purposes of maintaining municipal roadways, by watering gravel-based roads to minimize dust generation during the Spring, Summer and early Fall seasons. Given the recent water supply challenges the City has been faced with, the City has been enforcing water conservation measures in order to promote more efficient use of water, in order to ensure sufficient supply to the community for essential means. As such, the City is seeking an amendment to its Type A water licence to allow for the withdrawal of water from Dead Dog Lake, which will be used solely for maintaining municipal roadways for purposes of dust suppression. Dead Dog Lake is located on the Road to Nowhere, in the Road to Nowhere community in the City of Iqaluit. Figure 1 identifies the location of Dead Dog Lake.



Figure 1 – Location of Dead Dog Lake

Dead Dog Lake is currently used for recreation purposes only during the winter season (i.e. snowmobiling, skiing). Nearby walking trails are utilized during the summer months for recreational purposes as well. The lake is not used for fishing, as there is no known fish species present.

The City waters the municipal roadways three (3) days a week, between May and September. The City is utilizing approximately 45,000 liters (45 cubic metres) of water per day. As such, the City would be requesting to withdraw a total volume of 2,500,000 liters per year (2,500 cubic meters per year). Water would be withdrawn into a City water truck using a mobile pump.

Scope of amendment application

The City is applying to amend its current type A licence no 3AM-IQA1626:

- Extract 2,500,000 liters (2,500 cubic metres) of water annually from Imiqtarviviniq (Dead Dog Lake). Water will be used solely for maintenance of municipal roadways (i.e. dust suppression).

4. SUPPORTING DOCUMENTATION

The City does not have any supporting documentation for the project at this time.